

IT-204 F Multimedia Technologies

| L | T | P | Class | Work | : | Marks |
|---|---|---|-------|------|---|-----------|
| 3 | 1 | - | Exam | | : | 100 Marks |
| | | | Total | | : | 150 Marks |

Duration of Exam :3 Hrs.

NOTE: For setting up the question paper, question no 1 will be set up from all the four sections which will be compulsory and of short answer type. Two questions will be set from each of the four sections. The students have to attempt first common question, which is compulsory, and one question from each of the four sections. Thus students will have to attempt 5 questions out of 9 questions.

Section-A

Basics of Multimedia Technology: Computers, communication and entertainment; multimedia an introduction; framework for multimedia systems; multimedia devices; CD- Audio, CD-ROM, CD-I, presentation devices and the user interface; multimedia presentation and authoring; professional development tools; LANs and multimedia; internet, World Wide Web & multimedia distribution network-ATM & ADSL; multimedia servers & databases; vector graphics; 3D graphics programs; animation techniques; shading; anti aliasing; morphing; video on demand.

Section-B

Image Compression & Standards: Making still images; editing and capturing images; scanning images; computer color models; color palettes; vector drawing; 3D drawing and rendering; JPEG-objectives and architecture; JPEG-DCT encoding and quantization, JPEG statistical coding, JPEG predictive lossless coding; JPEG performance; overview of other image file formats as GIF, TIFF, BMP, PNG etc.

Section-C

Unit-3: Audio & Video: Digital representation of sound; time domain sampled representation; method of encoding the analog signals; subband coding; fourier method; transmission of digital sound; digital audio signal processing; stereophonic & quadraphonic signal processing; editing sampled sound; MPEG Audio; audio compression & decompression; brief survey of speech recognition and generation; audio synthesis; musical instrument digital interface; digital video and image compression; MPEG motion video compression standard; DVI technology; time base media representation and delivery.

Section-D

Virtual Reality: Applications of multimedia, intelligent multimedia system, desktop virtual reality, VR operating system, virtual environment displays and orientation making; visually coupled system requirements; intelligent VR software systems. Applications of environment in various fields.

Text Books:

- An introduction, Villamil & Molina, Multimedia Mc Milan, 1997
- multimedia: Sound & Video, Lozano, 1997, PHI, (Que)

Reference Books:

- Multimedia: Production, planning and delivery, Villamil & Molina,Que, 1997
- Multimedia on the PC, Sinclair,BPB
- Multimedia: Making it work, Tay Vaughan, fifth edition, 1994, TMH.
- Multimedia in Action by James E Shuman, 1997, Wadsworth Publ.,
- Multimedia in Practice by Jeff coate Judith, 1995,PHI.
- Multimedia Systems by Koegel, AWL
- Multimedia Making it Work by Vaughar, etl.
- Multimedia Systems by John .F. Koegel, 2001, Buford.
- Multimedia Communications by Halsall & Fred, 2001,AW.